(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 10273338 A

(43) Date of publication of application: 13 . 10 . 98

(51) Int. Cl
C03C 8/18
C03C 3/066
C04B 41/88
C23C 24/08
G03F 7/004
G03F 7/004
H01J 9/02

(21) Application number: 09078197

(22) Date of filing: 28 . 03 . 97

(71) Applicant: TORAY IND INC

(72) Inventor: OKINO AKIKO
MASAKI YOSHIKI
SANADA JUNJI

(54) PRODUCTION OF PHOTOSENSITIVE ELECTROCONDUCTIVE PASTE AND ELECTRODE USING THE SAME

(57) Abstract:

PROBLEM TO BE SOLVED: To obtain an electroconductive paste formable into a thin film on a glass substrate, etc., for formation of fine electrode patterns with a low electrical resistance and high bond strength, by including electroconductive powder, a photosensitive organic component and glass frit specifying each of its glass transition point, glass softening point, particle size and thermal expansion coefficient.

SOLUTION: This paste comprises: electroconductive power preferably containing at least one kind selected from Ag, Au, Pd, Ni and Pt; a photosensitive organic component preferably containing a photosensitive polymer or photosensitive oligomer, photosensitive monomer and photopolymerization initiator; and a glass frit having a glass transition point of 400 to 500°C, glass softening point of 450 to 550°C, mean particle size of 0.5 to 1.4 μm, the 90% particle size of 1 to 3 μm and the top particle size of ≤4.5 μm, and further a thermal expansion coefficient of (75 to 90)$\times 10^{-7}$/°K at 50 to 400°C, and preferably containing 20 to 80 wt.% Bi_2O_3 in terms of oxide.